

REMARKS

It is noted, with appreciation that the Examiner has indicated that claims 14-22 although objected as being dependent upon a rejected based claim, would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 16 and 19 have objected to for the reasons set forth in paragraph 1 and 2 of the Examiner's Office Action letter. Since claims 16 and 19 have been amended as suggested by the Examiner, it is believed that these objections have been eliminated.

Claims 23 has been objected to by the Examiner as being improper dependent form for failing to further list the subject matter of a previous claim. As the Examiner will note, claim 23 has been rewritten in independent form and accordingly it is believed that this objection has been eliminated.

Claims 1, 5,-8, and 23 have been rejected by the Examiner under 35 U.S.C. § 103(a) as being unpatentable over Weishew (U.S. Patent 6,412,409B2) in view of Uera (U.S. Patent 5,603,262). Claims 2 and 3 have been by the Examiner under 35 U.S.C. § 103(a) as being unpatentable over Wieshew and Eura as applied to claim 1 and further in of Schaum (U.S. 5, 662,038). Claim 4 has been rejected by the Examiner under 35 U.S.C. § 103(a) as being unpatentable over Weishew, Uera and Schuam as applied to claim 2 in further in view of Anderson (U.S. Patent 3,453,955). Claim 9 has been rejected by the Examiner under 35 U.S.C. § 103(a) as being unpatentable over Wieshew and Eura as applied to claim 1 and further in view Guaraldi (U.S. Patent 5, 301,609) and Lubke (U.S. Patent 5,109,768). Claim 10 has been rejected Examiner under 35 U.S.C. § 103(a) as being unpatentable over Wieshew and Eura as being applied to claim 1 and further in view of Guaraldi. Claim 11 has bee rejected by the Examiner under 35 U.S.C. § 103(a) as being unpatentable over Wieshew, Eura, Schaum as applied to claim 2 and further in view of Guaraldi. Finally, claims 12 and 13 have been rejected by the Examiner under 35 U.S.C. § 103(a) as being unpatentable over Wieshew and Eura as applied to claim 1 and further in view of Edwards, (U.S. Patent 4, 222,325). These rejections are respectfully traversed.

The present is directed to a printing module and a printing machine containing such a printing module wherein the printing module is provided with an impression roller, a plate cylinder assembly including a plate cylinder which is provided with a print image and which, in use, with the interposition of a substrate to be printed, abuts against the impression roller; an anilox roller and a doctor roller, the doctor roller taking up ink from an ink reservoir, the anilox roller being disposed between the doctor roller and the plate cylinder, such that a desired amount of ink is removed from the doctor roller by the anilox roller and transferred to the plate cylinder, the position of the plate cylinder being settable, the position of the anilox roller also being settable and the impression roller being rotatably bearing-mounted in a mounting frame.

The drawbacks of the known apparatus which represents some of the problems solved by the present invention is that with the adjustments of supports, the distance between the adjustment roller and the plate cylinder and the distance between the anilox roller and the plate cylinder is affected. Thus, setting the relative position of the plate cylinder, the impression roller and the anilox roller is of critical importance to the quality of the printed matter. It is desired that a proper setting, once made, is not lost.

The present invention provides a solution to such problems in that the plate cylinder is rotatably bearing-mounted in a first sub frame which is movably connected to the mainframe for the purpose of the positioning of the plate cylinder relative the impression roller, while the anilox roller and the doctor roller are rotatably bearing-mounted in a second sub frame which is movably connected to the mainframe for the purpose of positioning the anilox roller relative to the plate cylinder whereby the movable connections are so designed that a positioning change of the plate cylinder relative to the impression roller does not affect the positioning of the anilox roller relative to the plate cylinder and further that the positioning change of the anilox roller to the plate cylinder does not affect the positioning of plate cylinder relative to the impression roller. Thus, an important feature of the present invention is the fact that a positioning change of the plate cylinder relative to the impression roller does not affect the position of the anilox roller relative to the plate cylinder and that a position change of the anilox roller does not affect the positioning relative to the impression roller.

Basically, the present invention defines a relationship between a plate cylinder and an impression roller, an anilox roller, and a doctor roller as well as the connection between the first sub frame and the mainframe as well as the connections between the second sub frame and the mainframe whereby a high quality of printed matter can be achieved.

In the Weishew patent relied upon by the Examiner the movable connections disclosed therein cannot ensure that a positioning change of the plate cylinder 12 relative to the impression cylinder 18 does not affect the positioning of the anilox cylinder 14 relative to the plate cylinder. Instead, changing the position of the plate cylinder 12 either by means of the print cylinder lifting device 60 or by laterally moving the carriage 26 appears in itself, not to have any affect on the absolute position on the anilox cylinder 14. Characterized in another manner, changing the position of the plate cylinder 12 relative to the impression cylinder 18 does bring about a change in its position relative to the anilox cylinder 14. This is due to the fact that the position of the anilox cylinder and the print cylinder 12 are controlled independently by means of an anilox lifting device 50 and print cylinder lifting device 60, respectively. There appears to be no teaching in the Weishew patent which would suggest making the anilox cylinder follow a displacement of the plate cylinder 12 so as to maintain there relative orientation, and in particular, the radial distance disposed there between.

Because none of the secondary references, that is, the Eura patent, the Schaum patent, the Anderson patent, the Guaraldi patent, the Lubke patent or the Edward patent fill the deficiencies of the Weishew patent, it is believed that none of the combination of references relied upon by the Examiner in paragraphs 5-10 of the Examiner's Office Action letter are effective in rendering obvious claims 1-13 and 23 of the present application. Accordingly, in view of the above amendments and remarks reconsideration of the rejection and allowance of all the claims of the present application are respectfully requested.

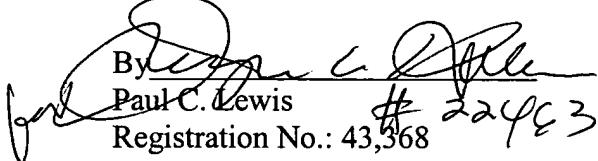
CONCLUSION

Should there be any outstanding matters that need to be resolved in the present application; the Examiner is respectfully requested to contact Joseph A. Kolasch Reg. No. 22,463 at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.147; particularly, extension of time fees.

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Respectfully submitted,


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